# MODEL NO. TPR-955H,E,K,G

# AIWA® **(SERVICE MANUAL)**

Code No. 03-955-000-53



Shown above is TPR-955H

DATE OF ISSUE 5/1980

#### SPECIFICATIONS

FM stereo separa

(Un-Weighted)

GENERAL

H, G model 11 ICs, 54 transistors, 1 FET, 34 diodes, 5 LED's E, K model

t, K model 11 ICs, 56 transistors, 1 FET, 34 diodes, 5 LED's Batteries DC 9 V (UM-1 x 6) H, E model: AC 110 ~ 120V/220 ~ 240V

K. G model: AC 120V/240V

(switchable) 50-60 Hz H model 19W E model 17W

K model 20W G model 23W

Waofer 160 mmp x 2 Tweeter 52 mmp x 2 490 x 370 x 130 (mm) ns (W x H x D):

7.2 kg

RADIO SECTION

requency range;

H, G model FM 87.0 ~ 109.0 MHz SW, 6.8 ~ 22.5 MHz SW, 2.1 ~ 7.3 MHz MW 515 ~ 1,650 kHz

Intermediate frequency:

Sensitivity:

FM 87.4 ~ 108.3 MHz SW 5,7 ~ 18.5 MHz MW 515 ~ 1,650 kHz LW 145 ~ 320 kHz FM 10.7 MHz SW, SW,, SW,, MW, LW H, G model: 455 kHz E, K model: 468 kHz FM (S/N 6 dB) 4 ± 3 dB (at 88,98,108 MHz)

SW (S/N 10 dB) 26 ± 5 dB (at 5.9 MHz) 17 ± 5 dB (at 12 MHz)

17 : 5 dB (at 12 MHz) 15 : 5 dB (at 18 MHz) SW, (S/N 10 dB) 28 : 5 dB (at 7 MHz) 17 : 5 dB (at 14,22 MHz) SW, (S/N 10 dB) 40 : 4 dB (at 2,3,7.0 MHz) 38 : 4 dB (at 2,3,7.0 MHz)

MW ( \$ /N 10 4R)

H, G model 44 ± 4 dB (at 600, 1,000, 1,400 kHz)

44 ± 4 50 ... E, K model 43 ± 4 dB (at 600 kHz) 42 ± 4 dB (at 1,000,1,400 kHz) LW (S/N 10 dB) 52 ± 5 dB (at 150 kHz) 50 ± 5 dB (at 220,300 kHz)

25 ± 5 dB (at 1 kHz) H.G model

Built-in whip antenna for FM, SW, Built-in ferrite bar antenna for SW,, MW

External antenna terminals for FM E, K model Built-in whip antenna for FM, SW Built-in ferrite bar antenna for

MW LW External antenna terminals for FM

TAPE RECORDER SECTION

NAC bias AC bias AC erase 54.5 ± 1 kHz Less than 1.7% (PB) Less than 3.0% (REC/PB) Erasing system

Less then 3.0% (REC/PB) H, G model Normal tape 40 ~ 12,500 Hz Cr0, tape 40 ~ 14,000 E, K model Normal tape 50 ~ 12,000 Hz Cr0, tape 50 ~ 14,000 Hz Fe-Cr tape 50 ~ 14,000 Hz More than 50/47 dB Signal to noise ratio:

Erasing ratio: Separation: Maximum output power:

More than 50/47 dB

More than 43/42 dB

More than 43/42 dB

More than 55 dB (at 400 Hz)

More than 50 dB (at 400 Hz)

More than 50 dB (at 400 Hz)

More than 50 dB (at 400 Hz)

More than 50/2 dB (at 400 Hz)

More than 50/47 dB (at 400 Hz)

More Maximum output Head: Pinch roller pressu Wow and Flutter: Take-up torque: 100 +20 g·cm (0.98 +0.2 mN·m) FF & rewind torque:

· The specifications and external appearance of this set are



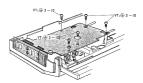
#### DISASSEMBLY INSTRUCTIONS

# To Remove Back Cover Remove the 2 screws. (See figure 1)



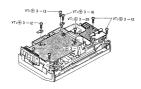
<Fig. 1>

# To Remove REC/PB Circuit Board Remove the 5 screws. (See figure 2)



<Fig. 2>

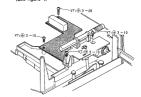
To Remove Main Case
 Remove the 8 screws.
 (See figure 3)



<Fig. 3>

## 4. To Remove Tuner Circuit Board

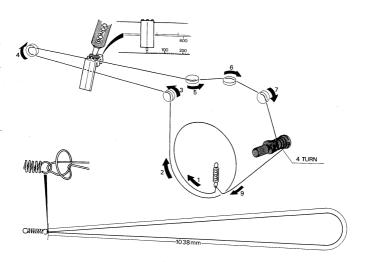
1) Remove the 4 screws. (See figure 4)



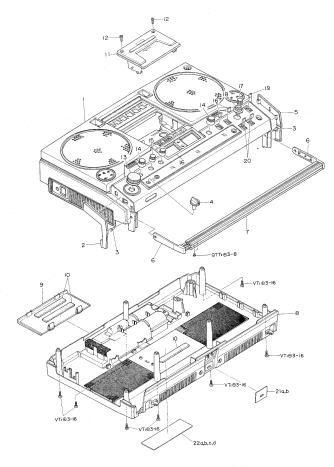
<Fig. 4>



# DIAL CORD STRINGING



## EXPLODED VIEW-1





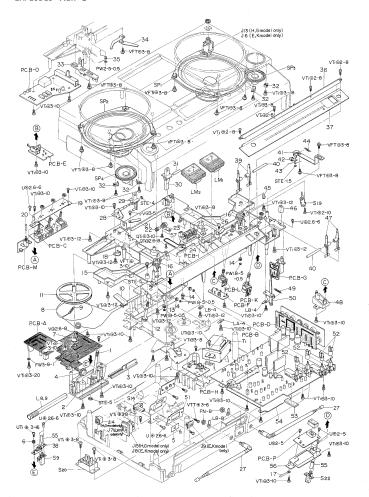
#### PARTS LIST

## MECHANICAL PARTS

 mark in this part list shows exclusive part (which is used) for only Model TPR-955.

Q'ty	Common Model	Description	Part No. Changed to	Part No.	Ref. No.
 1		Main cabinet ass'y (H.G model only)		09-017-789-01	1-1a
1	*	Main cabinet ass'y (E,K model only)		09-017-788-01	1-1b
1 1	TPR-950	Panel,R, Side		82-541-019-01	1-2
2	TPR-950	Shaft, Carrying handle		82-541-267-01	1-3
1 1	TPR-950	Knob, band	1	82-541-025-01	1-4
1	TPR-950	Panel L, Side	1	82-541-020-01	1-5
2		Handle arm R	1	82-534-013-01	1-6
1	TPR-950	Handle grip		82-541-013-01	1-7
1 1		Back cover ass'y	1 1	09-017-790-01	1-8
1 1	TPR-950	Battery room lid	1	82-541-003-01	1-9
. 3	TPR-601	M cushion		82-416-260-01	1-10
1	• .	Cassette Iid ass'y		09-017-791-01	1-11
2		Allen screw 3-14		87-081-895-01	1-12
1		Knob, Tuning		82-538-041-01	1-13
2		Knob A, Volume	1	82-560-013-01	1-14
2		Knob B, Volume		82-560-014-01	1-15
2		Knob A, Lever switch	1 1	82-560-017-01	1-16
1		Knob D, Volume	1	82-560-016-01	1-17
1 1		Knob C, Volume	1	82-560-015-01	1-18
1		Knob, Sleep	1	82-560-019-01	1-19
2		Knob, B, Lever switch		82-560-018-01	1-20
1	TPR-950	Plate, Antenna (H, G model only)		82-541-094-01	1-21a
1 1	TPR-950	Plate, Antenna (E, K model only)	1	82-541-075-01	1-21b
1		Name plate, Spec. (H model only)		82-573-009-01	1-22a
1		Name plate, Spec. (E model only)		82-573-010-01	1-22b
1		Name plate, Spec. (K model only)		82-573-011-01	1-22c
1		Name plate, Spec. (G model only)	1	82-573-013-01	1-22d

#### EXPLODED VIEW-2



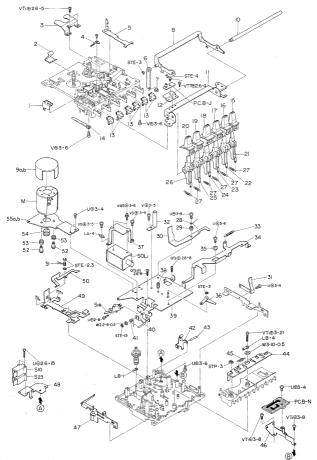


Ref. No.	Part No.	Part No. Changed to	Description		Common Model	Q'ty	
2-1	82-541-205-01		Gear C, Band selector		TPR-950	1	
2-2	82-541-301-01	]	Chassis, Tuning		TPR-950	1	
	82-541-204-01	i	Gear B, Band selector		TPR-950	1	
2-3							
2-4	82-541-203-01		Gear A, Band selector		TPR-950	1	
2-5	82-541-058-01		Himeron cloth, Antenna switch		TPR-950	1	
2-6	87-087-027-01		Rubber cushion			2	
2-7	82-439-311-01		Joint, Drum		TPR-300	1	
2-8	87-096-045-01	1	String, Dial			1 1	
2-9	82-534-290-01		E-spring, Tuning brum			1	
2-10	82-541-014-01		Pointer, Tuning		TPR-950	1	
2-11	82-439-310-01		Drum		TPR-300	1 1	
2-12	82-541-232-01		Shaft, Tuning		TPR-950	1 1	
			Roller			1	
2-13	81-302-107-01						
2-14	81-385-014-01		Roller	-		4	
2-15	82-541-201-01		Chassis, Radio		TPR-950	1	
2-16	87-064-084-01		Holder, ECM			2	
2-17	87-038-039-01		Wire binder			2	
2-18	82-541-280-01		Metal fitting, Push-button shaft		TPR-950	1	
2-19	82-541-298-01		Metal fitting E, Volume		TPR-950	1	
2-20	82-545-016-01		Push-button, REC mute		TPR-980	1	
						1 1	
2-21	82-560-224-01	1	P-spring, Cassette up	-		1	
2-22	82-534-264-01		Gear, oil damp			1	
2-23	82-534-250-01		Oil damp metal fitting ass'y			1 1	
			Counter			1	
2-24	87-040-113-01					1	
2-25	87-064-059-01		Holder, ECM				
2-26	82-541-275-01		Plate spring, Earth plate		TPR-950	1 1	
2-20	87-043-050-01		Rod antenna			2	
						1	
2-28	82-560-209-01		Holder ass'y, ATS knob		*		
2-29	82-560-007-01		Push-key, ATS		*	1	
2-30	82-541-026-01		Push-key, Stand-by		TPR-950	1	
2-31	00 544 004 04		Chaft Charletter			1 1	
	82-541-231-01		Shaft, Stand-by				
2-32	82-541-235-01		Metal fitting, Tweeter			4	
2-33	82-560-207-01		Slide lever, ATS switch		* -	1	
2-34	82-560-208-01		Lever, ATS plate		*	1 1	
2-35	82-560-225-01		T-spring, Change lever		*	1 1	
2-36	82-541-012-01		Reflect plate		TPR-950	1	
2-37a	82-573-007-01		Dial plate (H, G model only)		*	1	
2-37b	82-573-008-01		Dial plate (E, K model only)			1 1	
2-38	82-541-299-01		Metal fitting, 49mm band		TPR-950	1	
			Lever B, Lever switch		TPR-950	2	
2-39	82-541-251-01					2	
2-40	82-541-246-01		Shaft, Lever switch		TPR-950	1	
2-41	82-541-233-01		Slide lever ass'y, Sleep		TPR-950	1	
2-42	82-530-223-01		Lock plate			1 1	
2-43	82-541-250-01		T-spring, Sleep switch		TPR-950	1 1	
2-44	82-541-243-01		E-spring, Sleep lever		TPR-950	1 1	
2-45	82-534-254-01		Lock pin, Power switch lever			1	
2-46	82-541-043-01		Knob, Light switch		TPR-950	1 1	
2-40	82-541-244-01		Lever A, Lever switch		TPR-950	2	
2-48	82-541-308-01		Holder, Peak circuit board		TPR-950	1	
2-49	82-541-245-01	1	E-spring, Sleep metal fitting		TPR-950	1	
2-50	82-541-236-01		Metal fitting ass'y, Sleep		TPR-950	1 1	
					TDD 000	1	
2-51	82-463-088-01		Terminal plate (E, K model only)		TPR-900	1 ' 1	
2-52	82-541-241-01		Joint, Lever switch		TPR-950	4	
2-53	82-416-260-01		M cushion		TPR-601	2	
2-54	82-541-638-01		Sield paper A		TPR-950	1	
			Knob, 49mm band		TPR-950	2	
2-55	82-541-061-01		Knob, 49mm band		1 F D-950	1 4 1	
2-56	82-560-218-01		Metal fitting			1 1	
2-57	82-541-268-01	1	Rubber belt, Counter		TPR-950	1	



#### EXPLODED VIEW-3

As this is a PM-1 mechanism, the exploded view is omitted (see the supplement PM-1 mechanism adjustment manual). The exploded view bellow shows the additional mechanism of the PM-1. Also shown are the attachments of the motor and a list of such.





Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
3-1	82-541-284-01		Plate spring, Wire holder	TPR-950	1	
3-2	82-563-292-01	1 1	P-spring, Cassette hold		1	
3-3	82-541-628-01		Sield plate, Head	TPR-950	1	
3-4	82-539-206-01		Earth plate, EH		1	
3-5	82-541-221-01	1 1	Cassette lock lever	TPR-950	1	
3-6	82-541-240-01	1	Oil damp lever	TPR-950	1	
3-7	82-461-319-01		Cushion, Cassette lid	TPR-930	1 1	
3-8	82-541-212-01		Cassette box lever ass'y	TPR-950	1 1	
3-9a	82-541-612-01		Motor sield cap (H, G model only)	TPR-950	1 1	
3-9b	82-551-629-01		Motor sield cap (E, K model only)	TPR-935	1	
3-10	82-541-216-01		Shaft, Push-button	TPR-950	1	
3-11	82-541-218-01		Metal fitting, Push-button	TPR-950	1	
3-12	82-541-273-01		Metal fitting, LED	TPR-950	1	
3-12	82-541-229-01		Knob, Change	TPR-950	6	
3-14	87-038-039-01		Wire binder		1	
3-14	82-541-031-01		Push-switch, PAUSE	TPR-950	1	
3-16	82-541-030-01		Push-key, STOP	TPR-950	1	
3-16	82-541-028-01		Push-key, FF	TPR-950	1	
3-17	82-541-027-01		Push-key, FWD	TPR-950	1 1	
	82-541-027-01		Push-key, REW	TPR-950	1 1	
3-19 3-20	82-541-032-01 82-541-029-01		Push-key, REC	TPR-950	1	
3-21	82-541-257-01		Push-lever, PAUSE	TPR-950	1	
3-21	82-541-255-01		Push-lever, STOP	TPR-950	i	
	82-541-254-01		Push-lever, FF	TPR-950	1 1	
3-23			Push-lever, FWD	TPR-950	1	
3-24	82-541-252-01 82-541-253-01		Push-lever, REW	TPR-950	1 1	
1			Push-lever, REC	TPR-950	1	
3-26	82-541-256-01		E-spring, Push-key	TPR-950	6	
3-27	82-541-288-01		T-spring, Pusit-key	11111000	1	
3-28	82-534-271-01	l i			l i	
3-29	82-534-212-01 82-541-224-01		Collar, REC lever REC lever	TPR-950	1 4	
1			P-spring, REC		1	
3-31	82-560-217-01	1	Circuit board supporter	TPR-950	;	
3-32	82-541-274-01		E-spring, Eject lever	1111000	1 1	
3-33	82-560-230-01			1 .	1 1	
3-34	82-560-238-01 82-560-219-01		Eject lever ass'y Collar, Eject lever		l i	
3-35					1	
3-36	82-560-206-01		Change lever, Solenoid		1 1	
3-37	82-560-204-01		Holder, Solenoid	AD-6300	1 1	
3-38	82-385-311-01		Thrust screw	AD-6300		
3-39	82-560-201-01		Flywheel bearing plate ass'y		1	
3-40	82-560-212-01	1 1	Lock plate, Stand-by			
3-41	82-560-231-01		T-spring, Pause lock plate		1	
3-42	82-541-297-01		P-spring, CrO <sub>2</sub> switch	TPR-950	1	
3-43	82-439-398-01		Shaft, CrO <sub>2</sub> selector	TPR-300	1	
3-44	82-560-220-01		ATS plate		1	
3-45	82-283-289-01		Spring, Play idler lever		1	
3-46	82-541-296-01		Metal fitting, CrO <sub>2</sub> switch	TPR-950	1	
3-47	82-560-213-01		Pause lever ass'y		1	
3-48	82-560-223-01		Metal fitting, Power switch	*	1	
3-49	82-560-236-01		Brake plate ass'y		1	
3-50	82-439-271-01	1	Lever, CrO <sub>2</sub> selector	TPR-300	1	
3-51	82-534-266-01		T-spring, CrO <sub>2</sub> selector lever		1	
3-52	87-081-483-01		Motor screw, M2.6		3	
3-53	87-087-029-01		Rubber cushion		3	1
3-54	87-071-025-01		Motor pulley		1	
3-54 3-55a	82-560-216-01	1	Holder, Motor (H, G model only)		1	
3-55b	82-541-316-01		Holder, Motor (E, K model only)	TPR-950	1	



## ELECTRICAL MAIN PARTS LIST = H, G MODEL

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
≪TUNER CH	CUIT BOAR	D SECTION≫	S6	82-541-605-11	Lever switch (MODE)
PCB-A	82-541-702-11	Tuner circuit board	SFR1,2	82-542-623-01	Semi-fixed resistor, 100KΩ-B
IC1	87-027-285-01	IC, HA-11251	SFR3,4	82-542-624-01	Semi-fixed resistor, 10KΩ-B
IC2	87-027-296-01	IC, HA-11227	SFR5	87-021-596-01	Semi-fixed resistor, 20KΩ-B
21	87-026-109-01	FET, 2SK49 (E2)	SFR6	82-542-612-01	Semi-fixed resistor, 200KΩ-B
22	89-319-232-01	Transistor, 2SC1923 (R)		82-541-687-01	Heat sink plate
23	89-305-352-01	Transistor, 2SC535 (B)			< Capacitors>
Q4,5	89-316-752-01	Transistor, 2SC1675 (L)	C87,88	87-015-311-01	0.1µF 10V Aluminum solid
26	89-110-153-01	Transistor, 2SA1015 (O)	C103,104	87-014-065-01	
27	89-309-455-01	Transistor, 2SC945L (Q)	0100,101	0,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1220001
D1	87-017-004-01	Diode, SD117	≪VOLUME	CIRCUIT BOA	RD SECTION≫
D2,5	88-051-060-01	Diode, IN60	PCB-C		Volume circuit board
03	87-027-097-01	Diode, IS1555	01,2	89-307-325-01	Transistor, 2SC732 (G)
04	87-027-286-01	Zener diode, HZ5C1	VR1,2,3,4	82-541-623-01	Volume, 50KΩ-A (BASS, TREBL
_1	82-539-657-01	FM antenna coil	VR5.6	82-541-646-01	Volume, 20KΩ-B (VOLUME)
_2	82-546-601-01	FM RF coil	*******	0201101001	
_3	87-007-088-01	FM OSC coil, 2½t	0007.000		<capacitor></capacitor>
_4	87-005-101-01	FM choke coil, 2.2µH	C307,308	87-015-314-01	0.47µF 10V Aluminum solid
L5	87-005-136-01	Coil, 20µH	317,318	1	
L6	87-008-182-01	FM quad coil	SIACK OID	CUIT BOARD	SECTION>
L7 .	82-541-675-01	SW <sub>2</sub> antenna coil			
L8,9	82-541-674-01	SW <sub>1</sub> , MW bar antenna coil	PCB-D	82-541-619-11 82-541-601-11	Jack circuit board
L10,11	87-007-058-01	SW <sub>1</sub> , SW <sub>2</sub> OSC coil	J1∼12 S15		Jack plate ass'y Slide switch (OSC)
L12	87-007-057-01	MW OSC coil	815	82-541-627-01	Slide switch (USC)
VC1,2,3,4 TC2,3,4,8	87-011-105-01	Poly-variable capacitor	≪REC MUT	E CIRCUIT BO	DARD SECTION>
TC1,5,6,7,9	87-011-099-01	Trimmer	PCB-E	82-541-636-11	REC MUTE circuit board
CF1,2	87-008-153-01	Ceramic filter	Q1,2	89-318-154-01	Transistor, 2SC1815 (Y)
CFT1	87-008-162-01	AM ceramic filter transformer	\$8	82-541-626-01	Slide switch (REC MUTE)
IFT1	87-008-174-01	FM IFT		1	
IFT2	87-008-164-01	AM IFT	≪PEAK CIR	CUIT BOARD	SECTION≫
LPF1,2	87-028-038-01	Low-pass filter	PCB-F	82-541-630-11	Peak circuit board
SFR1	87-021-357-01	Semi-fixed resistor, 10KΩ-B	Q35~38	89-318-154-01	Transistor, 2SC1815 (Y)
SFR2	87-021-527-01	Semi-fixed resistor, 500Ω-B	SFR1	87-021-434-01	Semi-fixed resistor, 20KΩ-B
S1	87-031-441-01	Rotary switch (BAND SELECTOR		1	
		< Capacitors >	≪SWITCH C	IRCUIT BOAR	
C36	87-014-045-01	330pF PP	PCB-G		Switch circuit board
C81	87-014-049-01	470pF PP	D1,2	87-027-097-01	Diode, 1S1555
C34	87-014-061-01	1500pF PP	S7	82-541-603-01	Slide switch (TUNE/BATT)
C28	87-014-065-01	2200pF PP		1	'
C89 .	87-015-311-01	0.1µF 10V Aluminum solid		RCUIT BOAR	D SECTION≫
C83	87-015-311-01	0.33µF 10V Aluminum solid	ΔPCB-H	87-033-153-01	Power circuit board
C03	87-015-320-01	0.33gi 104 Aldiillialli solid	D1~4	87-027-445-01	Diode, 10E-2
≪ REC/PR CI	RCHIT BOAR	D SECTION≫		87-035-144-01	Fuse, "T" 250mA
PCB-B	82-541-615-71	REC/PB circuit board		87-098-010-01	Fuse label, "T" 250mA
IC1,2	87-027-227-01	IC, TA-7215P	∕NF2	87-035-118-01	Fuse, "T" 2.5A
01,2,11,12,19				87-098-020-01	Fuse label, "T" 2.5A
20	89-307-326-01	Transistor, 2SC732 (BL)		87-032-323-01	Fuse clamp
Q3,4,7,8,13,14		Transistor, 2SC732 (G)	≪PFΔK I FI	CIRCUIT BO	ARD SECTION≫
Q5,6	89-310-006-01	Transistor, 2SC1000 (BL)	PCB-I	82-541-632-11	Peak LED circuit board
Q9,10,21,22	89-318-154-01	Transistor, 2SC1815 (Y)	D1	87-027-262-01	LED, TLR-124 (+7dB)
23,24,29,30		II .	D2	87-027-263-01	LED, TLY-124 (+3dB)
Q15,16,25,26	89-104-954-01	Transistor, 2SA495 (Y)		07-027-203-01	EED, 121124 (1300)
027,28	89-318-155-01	Transistor, 2SC1815 (GR)	≪REC LED	CIRCUIT BOA	RD SECTION≫
Q31,32	89-200-562-01	Transistor, 2SB56 (B)	PCB-J		REC LED circuit board
Q39	89-404-005-01	Transistor, 2SD400 (E)	D1	82-300-622-01	LED, SLP-132B (REC)
D1,2,5,6,7,8	88-051-060-01	Diode, 1N60	D1	02-300-022-01	LED, OEI-102D (HEO)
D3,4	87-027-097-01	Diode, 1S1555	≪BEC VP C	IRCUIT BOAF	RD SECTION≫
D9	87-027-228-01	Zener diode, 05Z-7.5U	PCB-K		REC VR circuit board
L1,2	87-003-044-01	Trap coil	VR1,2	82-541-625-01	Volume, 20KΩ-A(REC)VOLUM
L3	82-401-661-01	Choke coil, 600µH	VH1,2	02-041-020-01	Volume, 20K42-AITEC/VOLUM
L4	87-003-039-01	Choke coil, 36µH	€ DALAMOT	VP CIRCILIT	BOARD SECTION
L5	82-418-612-01	Bias OSC coil			BOARD SECTION >
S2	82-533-608-01	Slide switch (REC/PB)	PCB-L	82-541-671-11	Balance VR circuit board
S3,4	82-541-604-11	Lever switch (ALC, TAPE)	VR7,8	82-541-624-01	Volume, 100KΩ-A,C (BALANCE)



OPERATE)

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
≪LOUNDNE	SS CIRCUIT I	BOARD SECTION>	≪MISCELLA	NEOUS≫	
PCB-M	82-541-653-01	Loudness circuit board	/\T1	82-555-619-01	Power transformer (H model only)
S16	82-541-644-01	Push-switch (LOUDNESS)	<b>★</b> T1	82-555-620-01	Power transformer (G model only)
		<capacitor></capacitor>	BPH	87-046-163-01	REC/PB head
C3,4	87-015-367-01	0.15µF 10V Aluminum solid	EH	87-046-127-01	Erase head
C3,4	87-015-367-01	0.15µF 10V Aldininain solid	SOL1	82-560-610-21	Solenoid
≪CUDOME	CIRCUIT POA	RD SECTION≫	M	87-045-117-21	Motor
PCB-N	82-541-654-01	Chrome circuit board	LM1	87-040-111-01	Level meter L
S17	87-031-381-01	Slide switch (CrO., BIAS)	LM2	87-040-112-01	Level meter R
517	67-031-361-01	Silde switch (CrO <sub>2</sub> B1A3)	ECM1.2	85-868-019-01	ECM, CMU-9 (B)
MAC CIDCII	IT BOARD SI	CTION %	SP1.2	82-541-685-01	Speaker (Woofer)
PCB-O	82-560-606-31	MS circuit board	SP3,4	82-560-631-01	Speaker (Tweeter)
IC1,2	87-027-538-01	IC. µPD-4069	J13	87-032-881-01	Jack, 6.3φ (PHONES)
	87-027-439-01	IC, CMOS 4020	J14	82-266-214-11	DC jack (DC 9V)
IC3 IC4,5	87-027-298-01	IC, CMOS 4020	/\J15	87-032-853-01	AC jack
IC6	87-027-441-01	IC. TC4029	S9	82-541-679-01	Push-switch (AFC)
IC7	87-027-422-01	IC. TC5022	\$10,23	87-031-493-01	Micro switch (PLAY, MOTOR,
Q1,2,3,4,5,7	89-318-154-01	Transistor, 2SC1815 (Y)			SOLENOID)
Q6	89-110-154-01	Transistor, 2SA1015 (Y)	S11	87-031-393-01	Leaf switch (AUTO STOP)
Q8	89-311-623-01	Transistor, 2SC1162 (C)	S14	82-541-607-01	Slide switch (ANT SELECTOR)
Q9	89-318-156-01	Transistor, 2SC1815 (BL)	S18,19	87-031-418-01	Micro switch (PAUSE, TIMER
D1,2,3,4,5,10	87-027-097-01	Diode, 1S1555			STAND BY)
11,13,14	87-027-037-01	Diode, 101300	S20	87-031-393-01	Slide switch (VOLTAGE SELECTOR)
D6.7.8.9	88-052-188-11	Diode, 1S188 (FM)	S22	82-560-609-01	Push-switch (PROGRAM)
BY1	82-555-622-01	Belay		87-033-139-11	External antenna terminal
S21	82-560-608-01	Slide switch (MS/SLEEP)	D1	87-027-365-01	Diode, S5277B
SFR1	87-021-570-01	Semi-fixed resistor, 100KΩ-B			< Capacitor >
SFR2	87-021-588-01	Semi-fixed resistor, 200KΩ-B	C1,2	82-981-610-01	
		< Capacitor >			
C5	87-015-518-01	1.5µF 25V Tantalum			
₫DIOITAL	IND CIDCUIT	BOARD SECTION>		ety component sy	
	82-560-607-21	Digital IND circuit board			o important parts which serve to
PCB-P					ne product, and which are made to
D1	87-027-506-01	LED (DIGITAL IND)			ty specifications. Therefore, when
D2	87-027-687-01	LED, SR505D (FM STEREO,	replaci	ng a component	with this symbol, make absolutely

conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.



## ELECTRICAL MAIN PARTS LIST = E, K Model

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
					Slide switch (REC/PB)
	RCUIT BOARI		S2	82-533-608-01	
PCB-A	82-541-702-11		S3,4	82-541-604-11	Lever switch (ALC, TAPE) Lever switch (FUNCTION)
IC1	87-027-285-01	IC, HA-11251	S5	82-541-606-11	Lever switch (MODE)
IC2	87-027-296-01	IC, HA-11227	S6 SFR1.2	82-541-605-11 82-542-623-01	Semi-fixed resistor, 100KΩ-B
Q1	87-026-109-01	FET, 2SK49 (E2)	SFR1,2 SFR3.4	82-542-623-01	Semi-fixed resistor, 10KΩ-B
Q2	89-319-232-01	Transistor, 2SC1923 (R)		87-021-596-01	Semi-fixed resistor, 10KΩ-B
Q3	89-305-352-01	Transistor, 2SC535 (B)	SFR5 SFR6	82-542-612-01	Semi-fixed resistor, 200KΩ-B
Q4,5	89-316-752-01	Transistor, 2SC1675 (L)	SFRO	82-541-687-01	Heat sink plate
Ω6	89-110-153-01	Transistor, 2SA1015 (O)		82-041-067-01	
07	89-309-455-01	Transistor, 2SC945L (Q)			< Capacitors>
D1	87-017-004-01	Diode, SD117	C109	87-015-141-01	10μF 16V Electrolytic BP
D2,5	88-051-060-01	Diode, IN60	C87,88,115	87-015-311-01	0.1µF 10V Aluminum solid
D3	87-027-097-01	Diode, IS1555 Zener diode, HZ5C1	116		2200oF PP
D4	87-027-286-01		C103,104	87-014-065-01	2200pF PP
L1 L2	82-539-657-01 82-546-601-01	FM antenna coil FM RF coil	41/01/1945		RD SECTION>
L2 L3	87-007-088-01	FM OSC coil, 2½t			Volume circuit board
L4	87-005-101-01	FM choke coil, 2.2µH	PCB-C	89-307-325-01	Transistor, 2SC732 (G)
L5	87-005-101-01	Coil, 20µH	Q1,2	89-307-325-01	Volume, 50KΩ-A(BASS,TREBLE
L6	87-008-182-01	FM quad coil	VR1,2,3,4		Volume, 20KΩ-B (VOLUME)
L7	82-539-651-01	SW antenna coil	VR5,6	82-541-646-01	
L8,9	82-541-642-01	LW, MW bar antennar coil			< Capacitor >
L0,9 L10	82-573-602-01	SW OSC coil	C307,308	87-015-314-01	0.47µF 10V Aluminum solid
L11	87-007-057-01	MW OSC coil	317,318		
L12	82-479-664-11	LW OSC coil			
VC1,2,3,4	82-475-004-11	the second second	≪JACK CIR	CUIT BOARD	SECTION≫
TC2,3,7,8	87-011-105-01	Poly-variable capacitor	PCB-D	82-541-658-01	Jack circuit board
TC1,4,5	87-011-099-01	Trimmer	J1~5	82-541-639-11	Jack plate ass'y
TC6	87-011-099-01	Trimmer, IAT-54	S15	82-541-647-01	Slide switch (OSC)
TC9	85-708-604-01	Trimmer, 30P		l	1
CF1,2	87-008-169-01	Ceramic filter	≪REC MUTI	E CIRCUIT BO	OARD SECTION≫
CFT1	87-008-159-01	AM ceramic filter transformer	PCB-E	82-541-636-11	
IFT1	87-008-130-01	FM IFT	Q1,2	89-318-154-01	Transistor, 2SC1815 (Y)
	87-008-174-01	AM IFT	S8	82-541-626-01	Slide switch (REC MUTE)
IFT2 LPF1,2	87-028-038-01	Low-pass filter		İ	I .
SFR1	87-028-038-01	Semi-fixed resistor, 10KΩ-B	≪PEAK CIR	CUIT BOARD	SECTION≫
		Semi-fixed resistor, 10k22-0	PCB-F	82-541-669-11	Peak circuit board
SFR2	87-021-527-01	Rotary switch (BAND SELECTOR	Q35~38	89-318-154-01	Transistor, 2SC1815 (Y)
S1	82-541-688-01		SFR1	87-021-434-01	Semi-fixed resistor, 20KΩ-B
	1	< Capacitors>			1
C36	87-014-035-01	120pF PP	≪SWITCH C	IRCUIT BOAF	RD SECTION≫
C34	87-014-045-01	330pF PP	PCB-G	82-541-701-01	Switch circuit board
C81	87-014-049-01	470pF PP	D1,2	87-027-097-01	Diode, 1S1555
C33	87-014-071-01	3900pF PP	S7	82-541-603-01	Slide switch (TUNE/BATT)
C89	87-015-311-01	0.1µF 10V Aluminum solid	0,	02011000	1
C83	87-015-320-01	0.33µF 10V Aluminum solid	≪ POWER CI	RCUIT BOAR	D SECTION≫
	1	December 1	/ PCB-H	87-033-137-01	Power circuit board
≪REC/PB C	RCUIT BOAR		D1~4	87-027-445-01	Diode, 10E-2
PCB-B	82-541-652-41	REC/PB circuit board	ÆF1	87-035-145-01	Fuse, "T" 250mA
IC1,2	87-027-227-01	IC, TA-7215P		87-098-010-01	Fuse label, "T" 250mA
Q1,2,11,12	89-307-326-01	Transistor, 2SC732 (BL)	_∱F2	87-035-139-01	Fuse, "T" 2.5A
19,20			717	87-098-020-01	Fuse label, "T" 2,5A
Q3,4,7,8,13,14	89-307-325-01	Transistor, 2SC732 (G)		87-032-323-01	Fuse clamp
Q5,6	89-310-006-01	Transistor, 2SC1000 (BL)			
Q9,10,21,22	89-318-154-01	Transistor, 2SC1815 (Y)	≪PEAK LED	CIRCUIT BO	OARD SECTION>
23,24,29,30		-	PCB-I	82-541-667-11	
Q15,16,25,26	89-104-954-01	Transistor, 2SA495 (Y)	D1	87-027-262-01	LED, TLR-124 (+7dB)
Q27,28	89-318-155-01	Transistor, 2SC1815 (GR)	D2	87-027-263-01	
Q31,32	89-200-562-01	Transistor, 2SB56 (B)	-	0. 027-200-01	
039	89-404-005-01	Transistor, 2SD400 (E)	≪REC LED	CIRCUIT BOX	ARD SECTION≫
D1,2,5,6,7,8	88-051-060-01	Diode, IN60	PCB-J		REC LED circuit board
	87-027-097-01	Diode, IS1555	D1	82-300-622-01	
D3 4			91	02-300-022-01	LLD, 3LF-132B (FILO)
D3,4	87-027-228-01	Zener diode 05Z-7.5U			
D9	87-027-228-01	Zener diode, 05Z-7.5U	≪ DEC VP (	CIDCUIT BOA	DD SECTIONS
D9 L1,2	87-003-044-01	Trap coil			RD SECTION>
D9			≪REC VR ( PCB-K VR1,2		REC VR circuit board

Description



	Symbol No.	Part No.	Description	Symbo	l No.
	≪BALANCE	VR CIRCUIT	BOARD SECTION>	D1	
	PCB-L	82-541-666-11	Balance VR circuit board		
	VR7,8	82-541-624-01	Volume, 100KΩ-A , C (BALANCE)	C1,2	
	<b>≪LOUDNES</b>	S CIRCUIT BO	OARD SECTION>	C3	
	PCB-M	82-541-653-01	Loudness circuit board		
	S16	82-541-644-01	Push-switch (LOUDNESS)		
			< Capacitor >		Λs
	C3,4	87-015-367-01			This
	<b>≪CHROMÉ</b>	CIRCUIT BOA	RD SECTION≫		conf
	PCB-N	82-541-654-01	Chrome circuit board		repla
	Q501,502	89-318-155-01	Transistor, 2SC1815 (GR)		sure
	S17	87-031-381-01	Slide switch (CrO <sub>2</sub> BIAS)		
	a.n.	 	OTION &		
		IT BOARD SE			
	PCB-0	82-560-606-31	MS circuit board		
	IC1,2	87-027-538-01	IC, μPD-4069		
	IC3	87-027-439-01	IC, CMOS 4020		
	IC4,5	87-027-298-01	IC, CMOS 4001 NOR		
	IC6	87-027-441-01	IC, TC4029		
	IC7	87-027-422-01	IC, TC5022		
	01,2,3,4,5,7	89-318-154-01	Transistor, 2SC1815 (Y)		
	Q6	89-110-154-01	Transistor, 2SA1015 (Y)		
	Q8	89-311-623-01	Transistor, 2SC1162 (C)		
	Q9	89-318-156-01	Transistor, 2SC1815 (BL)		
	D1,2,3,4,5,10	87-027-097-01	Diode, 1S1555		
	11,13,14	00 050 400 44	D*- 1- 40400 (EM)		
	D6,7,8,9	88-052-188-11	Diode, 1S188 (FM)		
	RY1	82-555-622-01			
	S21	82-560-608-01	Slide switch (MS/SLEEP)		
	SFR1	87-021-570-01	Semi-fixed resistor, 100KΩ-B		
	SFR2	87-021-588-01	Semi-fixed resistor, 200KΩ-B		
			<capacitor></capacitor>		
	C5	87-015-518-01	1.5µF 25V Tantalum		
	4DIGITAL	ND OIDOINT	BOARD SECTION≫		
	≪DIGITAL PCB-P	82-560-607-21	Digital IND circuit board		
	D1	87-027-506-01	LED (DIGITAL IND)		
	D2	87-027-687-01	LED, SR505D (FM STEREO,		
	02	87-027-087-01	OPERATE)		
			J. 21111121		
	<b>≪MISCELL</b> A	NEOUS≫			
4	∑T1	82-555-620-01	Power transformer		
	RPH	87-046-163-01	REC/PB head		
	EH	87-046-127-01	Erase head		
	SOL1	82-560-610-21	Solenoid		
	M	87-045-117-21	Motor		
	LM1	87-040-111-01	Level meter L		
	LM2	87-040-112-01			
	ECM1,2	85-868-019-01	ECM, CMU-9 (B)		
	SP1,2	82-541-685-01	Speaker (Woofer)		
	SP3,4	82-560-631-01	Speaker (Tweeter)		
	J6	87-032-881-01	Jack, 6.3¢ (PHONES)		
	J7	82-266-214-11	DC jack (DC 9V)		
Δ	√78	87-032-434-01	AC jack		
	J9	82-488-656-01	Antenna terminal (DIN FM)		
	S9	82-541-679-01	Push-switch (AFC)		
	S10,23	87-031-493-01	Micro switch (PLAY, MOTOR,		
		1 .	SOLENOID)		
	S11	87-031-393-01	Leaf switch (AUTO STOP)		
	S14	82-541-607-01	Slide switch (ANT SELECTOR)		
	S18,19	87-031-418-01	Micro switch (PAUSE, TIMER		
,		1	STAND BY)		
1	∆s20	87-031-364-01	Slide switch (VOLTAGE SELECTOR	) .	
	S22	82-560-609-01	Push-switch (PROGRAM)		
		87-036-013-01	RH core		

82-981-610-01 3.3 μF 50V Electrolytic BP 87-015-424-01 0.68 μF 25V Aluminum solid

87-027-365-01 Diode, S5277B < Capacitors >

A Safety component symbol

Part No.

This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

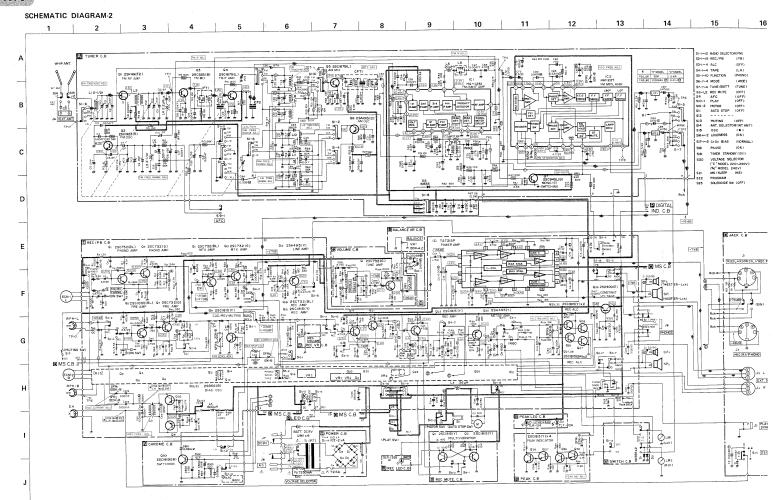


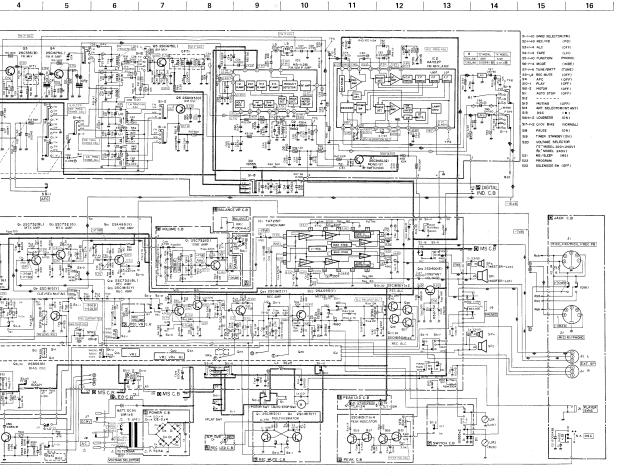
The following is the part number of the warms marked parts of the PM-1 mechanism.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1-13	82-385-332-11	Spring B, Head adjusting	2-50	82-439-489-01	Flywheel ass'y
1-14	87-046-163-01	Rec./pb head	2-51	82-439-314-21	Rubber belt
1-31	87-046-127-01	Erase head	2-60	82-385-309-21	Worm gear ass'y
2-33	82-560-227-01	REC lever			
2-49	82-562-227-01	Main belt			

## ACCESSORIES/PACKAGE

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
1	82-573-851-01		Printed indiv., Packing		1	
2	82-541-852-01		Cushion L, Printed indiv.	TPR-950	1	
3	82-541-853-01		Cushion R, Printed indiv.	TPR-950	1	
4	87-051-137-11		Poly-vinyl sack (for AC power cord) (H, E, K model only)		1	
5	87-056-607-01		Poly-vinyl sack (for case)		- 1	
6a	82-573-901-21		Instructions booklet (H model only)		1	
6b	82-573-903-01		Instructions booklet (E model only)		1	
6c	82-573-904-01		Instructions booklet (K model only)		1	
6d	82-573-906-01		Instructions booklet (G model only)		1	
7	87-051-171-11		Poly-vinyl sack (for instruction)		1	
8	82-573-902-01		Label, POP		1	ĺ
9	87-056-008-11		Label, AC power cord (K model only)	-1	1	
10	87-056-009-41		Distributors list	1	1	l
11	87-056-016-01		Tag, Main voltage (K model only)		1	
12	87-056-032-01		Guarantee card (G model only)	1	1	ł
13	87-056-046-01		Label, Main supply (K model only)		1	
14	87-056-535-01		Air-cap sack (G model only)		1	ĺ
15	82-916-640-01		Tape cassette, DMC-154		1	
16	87-032-845-01		Siemens plug (H model only)		1	
17a	87-034-880-01		AC power cord (H model only)		1	
17b	87-034-883-01		AC power cord (E model only)		1	
17c	87-034-871-01		AC power cord (K model only)		1	
17d	87-034-879-01		AC power cord (G model only)		1	
18	87-047-061-01		Battery, SUM-IAE		6	





NOTES:

1) - B (+) power supply

2) ⇒ Signal path

Rec path, AM signal path.

The voltage is the reference value measured with a tester (20 k-ohms/V DC) when there are no signals. ) is with AM reception or recording, An asterisk (\*) indicates that the value was measured

with a vacuum-tube voltmeter during recoridng. Resistors with no designation have a rated power of

1/4W and a tolerance of ±5%. 5) Capacitors with no designation have a dielectric

strength of less than 50WV.

The only capacitor tolerances indicated are ±5% (J) and ±10% (K).

7) Ceramic capacitor symbols:

⇒ For temperature compensation (SL)

-I⊩ High dielectric constant system (YY)

-II- High dielectric constant system (YW, YP, YZ) Ч⊢ Semiconductor ceramic

¬¬+ For temperature compensation (SH)

8) Explanation of symbols

Mylar capacitor

Aluminum solid capacitor Polypropylene film capacitor

Bi-polarized capacitor

Tantalum capacitor

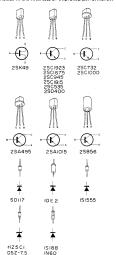
----- Printed resistor

Fuse resistor

A Safety component symbol

This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

This schematic diagram is subject to change without notice in the interests of improved performance.

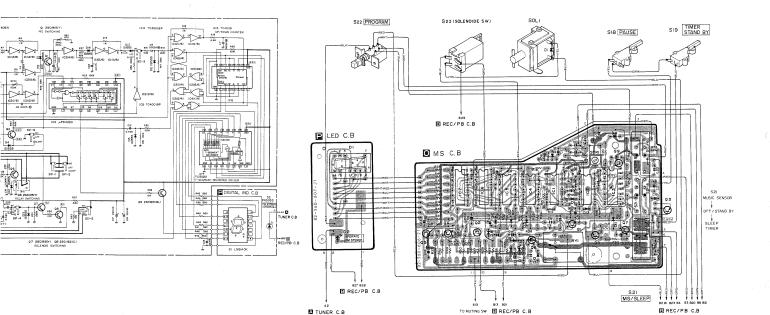


NOTES (1) B(+) Pattern (Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no sig

	NG

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

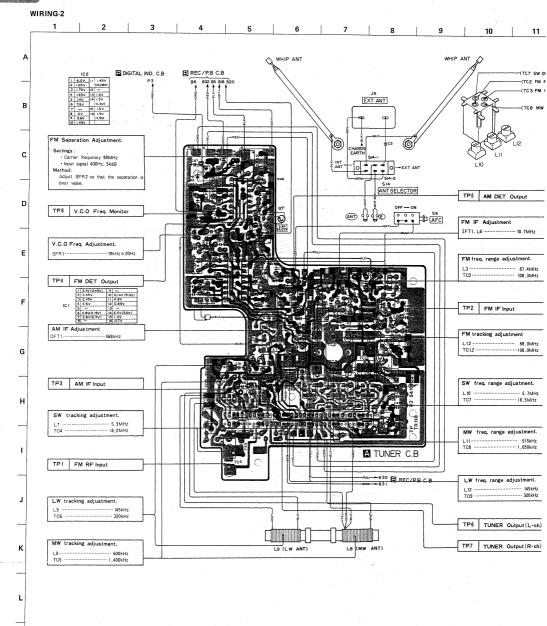


NOTES (1) B(+) Pattern (Control Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.

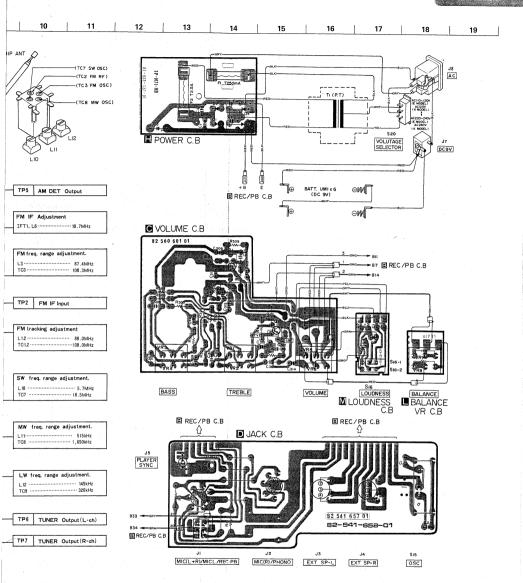


М



NOTES (1) B(+) Pattern Component side pattern Others pattern

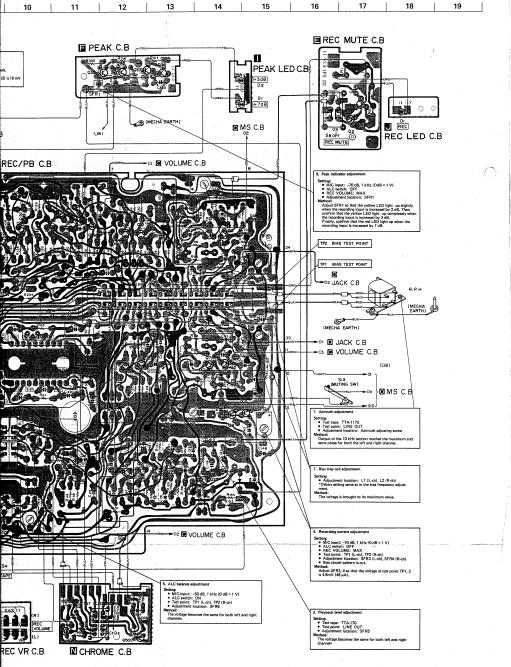
<sup>(2)</sup> The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals. But ( ) is with AM reception.



WIRING-3 10 11 8 5 6 location: SFR1 (L-ch), SFR2 (R-ch) g same as in the bias frequency adjustm etnod: Adjust SFR1 (2) so that the voltage at test point TP1 (2) is 18 1180 µA). В TUNER C.B MS C.B С ■ REC/PB C.B PHONES D ₽ {P2 DIGITAL IND. C.B G (AUTO STOP SW) MS C.B ■ REC/PB C.B (R) TUNER C.B 53 MODE ALC TAPE PEAK C.B MS C.B ∞ o LM2 LMI (L) (R) M TUNE/BATT. REC VR C.B SWITCH C.B A TUNER C.B

B(+) Pattern Component side pattern Others pattern (2) The voltage is the reference value measured with a tester (20 K ohms// DC) when there are no signals.

An asterisk (\*) indicates that the value was measured with a vacuum-tube voltmeter during recording.



e are no signals. recording.